

Name _____ Period _____

Geometry Unit 12 Worksheet #6 – Equation of a Circle

Match the equation of the circle with its center and radius

1. $x^2 + y^2 = 4$

2. $x^2 + y^2 = 9$

3. $(x + 1)^2 + (y - 4)^2 = 16$

4. $(x + 2)^2 + (y + 3)^2 = 9$

5. $(x + 3)^2 + (y - 5)^2 = 16$

6. $(x - 2)^2 + (y - 5)^2 = 9$

A. center $(-1, 4)$, radius 4

B. center $(-2, -3)$, radius 3

C. center $(0, 0)$, radius 2

D. center $(2, 5)$, radius 3

E. center $(-3, 5)$, radius 4

F. center $(0, 0)$, radius 3

Find the center and the radius of the circle using the given equation.

7) $x^2 + y^2 = 25$

center _____

radius _____

8) $(x - 5)^2 + (y - 4)^2 = 49$

center _____

radius _____

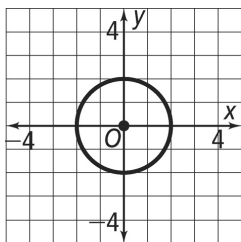
9) $(x + 6)^2 + (y + 7)^2 = 81$

center _____

radius _____

Use the graph to find the center and the radius. Then write the equation of the circle.

10)

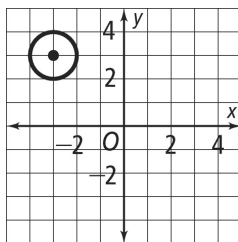


center _____

radius _____

equation:

11)

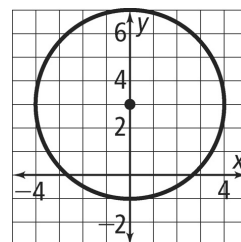


center _____

radius _____

equation:

12)

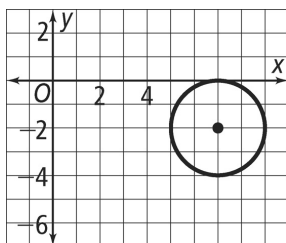


center _____

radius _____

equation:

13)

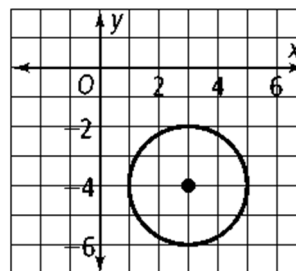


center _____

radius _____

equation:

14)



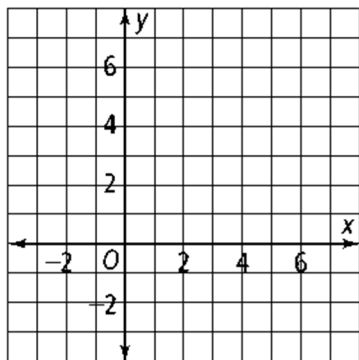
center _____

radius _____

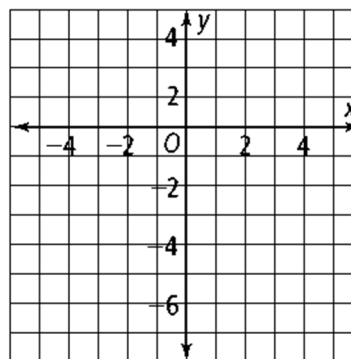
equation:

Given the equation of a circle, find the radius and the center. Then graph the circle.

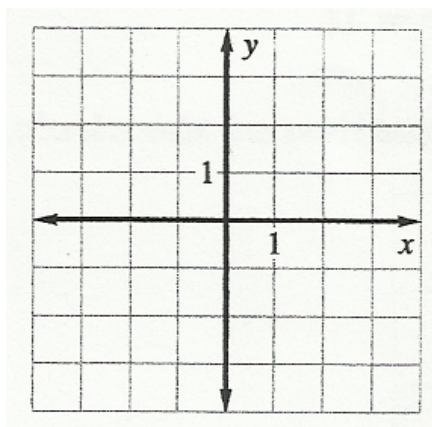
15) $(x - 2)^2 + (y - 3)^2 = 9$



16) $(x - 1)^2 + (y + 2)^2 = 16$



17) $(x - 1)^2 + y^2 = 4$



18) $x^2 + (y + 2)^2 = 9$

